

REMARKS

This paper is responsive to the Final Office Action mailed February 28, 2008. Claims 1-3, 5-9, 12, 13, 15-18, 21 and 22 were pending before submission of this paper. Claims 12 and 13 were previously withdrawn. Claims 1-3, 5-9, 15-18, 21 and 22 stand rejected. Claims 1, 3, 6, 7, 9, 15 and 16 have been amended. Claims 2, 5 and 17 are canceled. Claims 1, 3, 6-8, 12, 13, 15, 16, 18, 21 and 22 are currently pending. Support for all amended claims can be found in the specification and no new matter has been added by these amendments. Reconsideration of the claims in view of the amendments and the following remarks is respectfully requested.

Claim Rejections Under 35 U.S.C. §102

Claims 1 and 9 are rejected under 35 U.S.C 102(e) as being anticipated by U.S. Patent Publication No. 2002/0019870 to *Chirashnya*. Without conceding the merits of the rejection, Applicants respectfully submit that the amended claims overcome this rejection.

Claim 1, as amended, recites:

A storage subsystem which is connected to a host computer through a communication line, comprising
an interface which is used for connecting to said communication line, wherein,
said interface comprises a first filter which judges, on the occasion of having received communication packets from said communication line, whether there is a communication packet with a predetermined format for use in an access to said storage subsystem, among the communication packets;
wherein said interface further comprises:
a second filter which receives the communication packet judged to be for access to said storage subsystem in said first filter, and judges whether the received communication packet is permitted access to a storage area in said storage subsystem and is transmitted from said host computer,
a traffic measuring and judging unit which measures:
traffic of all communication packets received in the interface,
traffic of a communication packet judged not to be the packet with said predetermined format in said first filter, and
traffic of a communication packet with said predetermined format judged not to be transmitted from said host computer in said second filter,
wherein said traffic measuring and judging unit uses the three measured traffics to judge whether a communication failure is generated, and
a communication failure alerting unit which alerts a management server connected to said storage subsystem, wherein the management server comprises a function of displaying information alerted, in case that it is judged that a communication failure is generated in said traffic measuring and judging unit.

The Office Action states that claim 1 is disclosed in *Chirashnya* at paragraph [0047] which states that "the network is monitored for errors and failures." However, claim 1 is directed to a method for detecting communication failure.

As described in claim 1, a failure is detected using two kinds of filters based on a ratio of three specific packets: 1) a packet which does not have a predetermined format, 2) a packet with the predetermined format but is not permitted to access a storage area, and 3) a normal packet.

In the error and failure monitoring of *Chirashnya*, events collected by event collectors 30 are sent to diagnostic unit 20 through event collector 32 [0048-0049], and diagnostic unit 20 judges communication failure based on events, etc. by using a Bayesian filter [0052-0058]. From the result, recommendation and explanation generator 52 judges if the failure rate is over a threshold value [0059]. Thus, a failure which could happen as a Bayesian filter is described as a fault model and a probability of failure occurrence is determined accordingly [0054].

As discussed above, *Chirashnya* discloses a method to determine a failure by a Bayesian filter using a fault model which describes a possible fault network. In contrast, claim 1 is directed to a method to detect a failure not by using a probability model but by using two kinds of filters based on the ratio of three specific packets. Specifically, the two filters sort packets into three categories, enable a communication failure to be specified as a communication of an improper packet (first filter), improper logical unit access of a host computer due to a mistake in setting of an access right to the logical unit (second filter), or an inappropriate setting of network QoS [0064].

In summary, claim 1 describes using two kinds of filters and sorting packets into three categories. This is not disclosed in *Chirashnya*. According to *Chirashnya*, it is not possible to determine a failure if the failure is not defined as a failure model.

Moreover, the Office Action states that an error corruption corresponds to "communication packet judged not to be the packet with said format in said first filter" of claim 1. However, *Chirashnya* does not disclose the features of detecting especially for a format error and an access error as described in claim 1.

Neither *Chirashnya* nor any of the other cited references, alone or in combination, disclose all of the features recited in independent claim 1. Specifically, *Chirashnya* does not disclose "a second filter which receives the communication packet judged to be for access to said storage subsystem in said first filter, and judges whether the received communication packet is permitted access to a storage area in said storage subsystem and is transmitted from said host computer." *Chirashnya* also does not disclose "a traffic measuring and judging unit which measures: traffic of all communication packets received in the interface, traffic of a communication packet judged not to be the packet with said predetermined format in said first filter, and traffic of a communication packet with said predetermined format judged not to be transmitted from said host computer in said second filter, wherein said traffic measuring and judging unit uses the three measured traffics to judge whether a communication failure is generated." For at least this reason, claim 1 is allowable over the cited art.

Independent claim 9 recites features that are similar to the features recited in claim 1. As discussed above with reference to claim 1, the cited art does not teach these features. Thus, claim 9 is also allowable over the cited art for at least the same reasons.

Accordingly, withdrawal of the rejection of claims 1 and 9 under 35 U.S.C. 102(e) is respectfully requested.

Claim Rejections Under 35 U.S.C. §103

Claims 2, 3 and 5-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chirashnya* in view of U.S. Patent No. 6,622,220 issued to *Yoshida*. Claims 8 and 15-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chirashnya* and *Yoshida* in view of U.S. Patent No. 7,137,145 issued to *Gleichauf*. Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chirashnya* in view of U.S. Patent No. 7,185,266 issued to *Blightman*. Claim 22 is rejected under 35 U.S.C. § 103(a) as being upatentable over *Chirashnya*, *Yoshida* and *Gleichauf* in view of *Blightman*.

Independent claim 15 recites features that are similar to the features recited in claim 1. As discussed above with reference to claim 1, the cited art does not teach these features. Thus, claim 15 is also allowable over the cited art for at least the same reasons.

Claims 3 and 6-8 depend from claim 1, and claims 16, 18, 21 and 22 depend from claim 15. As discussed above, claims 1 and 15 are allowable. Thus, claims 3, 6-8, 16, 18, 21 and 22 are also allowable for at least the same reasons as well as on their own merits.

Claims 2, 5 and 17 have been cancelled, rendering the rejection of these claims moot.

Accordingly, withdrawal of the rejection of claims 2, 3, 5-8, 15-18, 21 and 22 under 35 U.S.C. 103(a) is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 206-467-9600.

Respectfully submitted,

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